tion ataxia is rather in favor of gliosis and against hysteria. Third, the ordinary teaching of the skin and tendon reflexes holds good in these conditions. Fourth, vasomotor and trophic disturbances, if light in character, can only be used for differential diagnosis with great caution. Severe trophic disturbances which cannot be imitated by the hysterical patient, such as the arthropathies, are certain indications of syringomyelia.

12. *Paralysis of the Eye Muscles.*—A girl of sixteen had been working at the glazing of crockery. She developed symptoms of lead poisoning and difficulty with her sight. When examined there was found bilateral paralysis of the abducens nerves. Vision was reduced to five twentieths in each eye, and there was papillo-retinitis. The tendon reflexes were greatly reduced on the left side. The patient responded to treatment, and made a complete recovery. The number of cases in which visual disturbances occur as a result of lead poisoning is extremely small. Bilateral paralysis of the abducens has been recorded in only three cases. There is no case on record in which there was transient loss of the tendon reflexes unilaterally, particularly as in this case it seemed to involve the reflex arc. The second case, a man of fifty-nine, had had syphilis at the age of forty-seven. He had always smoked to excess. The abducens and oculomotor nerve on the left side were paralyzed. Vision was greatly reduced as a result of toxic retro-bulbar neuritis. There were no symptoms of tabes. The character of the retro-bulbar neuritis indicated nicotine poisoning. It was therefore assumed that the muscular pareses were due to the same cause, but no improvement occurred when the patient stopped smoking.

13. *Nervous Form of Disease with Superficial Characteristics of Myotonia.*—Von Bechterew reports the case of a man of twenty-one who had gradually developed a curious muscular condition in which it was difficult for him to make any spontaneous movement. If the eyes were closed they could only be opened by the aid of the hands. If the mouth was closed the same was true. If his fists were made he could only open them very slowly with the aid of the other hand. There were no myotonic reactions in any of the muscles, and no muscular atrophies. The tendon reflexes were normal; the cutaneous reflexes showed slight variation; sensation was normal. There was some fibrillary twitching of the tongue, and the patient, on account of the muscular condition, was unable to speak.

J. Sailer (Philadelphia).

Archiv für Psychiatrie und Nervenkrankheiten

(Vol. 41. Part 3.)

1. Pathological Anatomy of Paralysis Agitans. Kinichi Naka.
2. Pathological-Anatomical Alterations of the Brain in Leprosy, Leprosy Bacilli in the Gasserian Ganglia, and the Anatomy and Pathology of Nerve Cells of the Brain in General (conclusion). Hugo Stahlberg.
3. The Question of Amnesic Aphasia and its Distinction from Transcortical and Glossopsychical Aphasia. Kurt Goldstein.
4. A Contribution to the Study of Dissociation of Temperature and Pain Sense in Injuries and Diseases of the Spinal Cord. J. Piltz.
5. The Influence of Climate on Seven Epileptics. Georg Lomer.
6. Investigations on the Widening of the Pupil as a Result of Psychical and Sensory Irritation, together with General Considerations on Pupillary Reactions. A. H. Hübner.

7. The Process of Healing in Softenings, "Lichtungsbezirke" (Granular Disintegration) and Cysts of the Brain. S. SALTYKOW.

1. *Paralysis Agitans.*—Naka speaks of the relative infrequency of paralysis agitans and the confusion which has surrounded the study of its pathological anatomy. The various findings of the different investigators are detailed and afford an excellent example of the wide diversity of opinion which has existed regarding the essential pathological alteration of the disease. Two cases are reported in detail. From a study of these two cases a rather broad generalization is made that a brain lesion probably lies at the basis of the affection and that certain slight cell changes of cerebral and cerebellar cortex are presumably to be regarded as the cause of the symptoms.

2. *Leprosy.*—An exhaustive study of the alterations of the brain in leprosy by Stahlberg results in the following conclusions: It is unusual to find leprosy bacilli in the cerebrum, cerebellum or medulla oblongata. Leprosy, both of the tuberous and nerve variety, leads to degenerative changes in the brain, appearing in nerve cells and nerve fiber. These changes are not to be regarded as characteristic; they are unrelated to disease of peripheral nerves; they do not cause alterations of sensibility at the periphery. The lesions are not pathognomonic, since in other severe, chronic infectious diseases similar alterations of the brain occur. Through the entrance of leprosy bacilli into the nerve cells of the Gasserian ganglion a variety of vacuole degeneration develops which leads to destruction of the cell.

3. *Amnesic Aphasia.*—On the basis of an exceedingly careful study of a case of aphasia, Goldstein discusses particularly the question of the amnesic form and attempts to draw distinctions which our later teaching incline one to regard as somewhat hair-splitting. The analysis into which the author enters does not permit of a statement in an abstract review.

4. *Dissociation in Cord Diseases.*—The interesting question of the dissociation of temperature and pain sense in lesions of the spinal cord is discussed by Piltz with, in part, the following conclusions: Alterations of temperature and pain sense may be of cerebral, spinal or peripheral origin. The topography of spinal thermoanesthesia which occurs in a large number of spinal cord diseases is radicular in its peripheral distribution. A special tract for temperature and pain exists in the spinal cord, which is anatomically separated from that of tactile sensibility and muscle sense. This tract presumably crosses in the anterior commissure of the spinal cord and runs upward in Gowers' bundle. An unilateral lesion of the gray substance of the cord gives thermoanalgesia when it is limited to the dorsal horn, and a crossed analgesia when the gray substance in the neighborhood of the anterior horns is destroyed at the point where the secondary neurone passes through. Following these general anatomical facts an accurate localization of the limits of thermoanalgesia in relation to various lesions is attempted. The paper is a valuable contribution to the difficult subject of the localization in the cord of a special type of sensation.

5. *Epilepsy and Climate.*—Lomer contributes a short article on the relation of weather conditions to the welfare of epileptics and the effect of various seasons. Investigation of 194 attacks during the months of May, June and July showed that the greatest number occurred in May, and the fewest in July. As regards time of attacks, it is found that the maximum number occurs from five to eight in the morning, or at the time of lightest sleep and waking. In the afternoon from four to five the minimum number of attacks occur. The study on the effect of weather

and air pressure led to certain results of possible significance, but the number of cases investigated does not permit of a statement of dogmatic results. It is proposed to study the matter further on the basis of a larger number of cases.

6. *Pupillary Widening and Psychical Stimuli.*—Hübner offers an interesting experimental study of dilatation of the pupil as the result of psychic and sensory stimuli, and brings his findings into accord with various investigations which have been made on nerve and mental disease from the diagnostic standpoint. In general, the method employed was an exact arrangement of a source of light in an otherwise darkened room in constant relation to a patient. After testing the light and convergence reaction, certain questions were asked the patient, and finally the subject was violently frightened through the dropping of a heavy object or through hand clapping. To the question whether normally every mental process is accompanied by a widening of the pupil an affirmative answer is given, although exceptions are recognized as possible. What the writer calls "Pupillenunruhe," or constant oscillation of the iris, is found to be a practically constant phenomenon in healthy persons. Its possible value in the determination of mental or physical defects is discussed. The psychoreaction, or widening of the pupil, as a result of a psychic stimulus, as, for example, the asking of a question, is likewise regarded as a normal phenomenon in mentally sound individuals. Starting with these ascertained facts, the article concerns itself with an interesting discussion of various pathological conditions, both mental and physical, in which this pupillary phenomenon does not occur, or occurs in abnormal fashion. The limits of this review do not permit us to enter into details regarding the somewhat involved results which the author deduces from his experiments, but he finds reason to think that the phenomenon of dilatation of the pupil is of much diagnostic significance.

7. *Healing of Brain Defects.*—The somewhat disputed question of healing of brain defects is discussed by Saltykow. He finds as the result of his study that the following facts appear to be established: In the scar following an area of softening neuroglia and connective tissue share in the process but in varying degree; the gliomatous and connective tissue overgrowth occur almost simultaneously and have the same significance. There is also a complete gliomatous healing of softenings and not necessarily in extremely small areas. The "Lichtungsbezirke" (granular disintegration, Clarke) are not characteristic of multiple sclerosis, as has been assumed. The typical "Lichtungsbezirke" heal exclusively by neuroglia. There are, disregarding the ordinary "Lichtungsbezirke," larger areas which are visible macroscopically as gliomatous scars, and others which have the appearance of small softenings. Perivascular cysts are essentially walled in by neuroglia. They may, however, be obliterated by glia or connective tissue following the growth of a preëxisting intralymphatic reticulum. There is the greatest variety of transitional forms of the three lesions in the healing of which scars of complicated and atypical form develop.

E. W. Taylor (Boston).